

Storm Data and Unusual Weather Phenomena - August 2014

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
ILLINOIS, South				
JEFFERSON COUNTY --- DIX [38.43, -88.93], 5.0 E MT VERNON [38.32, -88.81]				
	08/16/14 23:00 CST		0	Heavy Rain
	08/17/14 07:00 CST		0	Source: COOP Observer
A co-operative observer measured 3.10 inches three miles northeast of Mount Vernon. A trained spotter measured 3.80 inches five miles east of Mount Vernon. These rainfall amounts were over a 12-hour period. Water was reported over rural roads in the Dix area, along with flooding of creeks and streams.				
WHITE COUNTY --- CARMi [38.08, -88.17]				
	08/17/14 01:00 CST		0	Heavy Rain
	08/17/14 06:00 CST		0	Source: Emergency Manager
An emergency management official measured 4.44 inches of rain. Lowland flooding was observed.				
HAMILTON COUNTY --- MC LEANSBORO [38.10, -88.53], BELL PRAIRIE CITY [38.22, -88.57], DAHLGREN [38.20, -88.68], 2.0 WSW FLINT [38.06, -88.67]				
	08/17/14 02:00 CST		0	Flood (due to Heavy Rain)
	08/17/14 10:00 CST		0	Source: 911 Call Center
Several secondary roads were impassable due to flooding. Portions of Illinois Route 14 were flooded west of Mcleansboro to the Franklin County line. Portions of Route 242 were flooded near Mcleansboro. The heaviest rain and flooding occurred from Mcleansboro west and northwest. A trained spotter in Mcleansboro reported his five-inch rain gage overflowed. Radar estimated from five to seven inches of rain in Mcleansboro and points west and northwest. These amounts were within a 12-hour period of time.				
A large, slow-moving mesoscale convective system moved east-southeast across southern Illinois, producing locally heavy rainfall. The complex was fed by a southerly wind flow of tropical moisture, with precipitable water values over two inches. The south winds were in advance of a weak surface low pressure center over eastern Missouri.				
(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC				
	08/19/14 01:00 CST		0	Dense Fog
	08/19/14 07:00 CST		0	
The combination of mostly clear skies, calm winds, and abundant low level moisture caused dense fog to form in many areas. The only exception was the Marion/Carbondale area. Visibility was reduced to one-quarter mile or less at times in the dense fog.				
(IL-Z075) JEFFERSON, (IL-Z076) WAYNE, (IL-Z077) EDWARDS, (IL-Z078) WABASH, (IL-Z080) PERRY, (IL-Z081) FRANKLIN, (IL-Z082) HAMILTON, (IL-Z083) WHITE, (IL-Z084) JACKSON, (IL-Z085) WILLIAMSON, (IL-Z086) SALINE, (IL-Z087) GALLATIN, (IL-Z088) UNION, (IL-Z089) JOHNSON, (IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC				
	08/20/14 11:00 CST		0	Heat
	08/27/14 17:00 CST		0	
A prolonged period of late summer heat and humidity followed an unusually cool July. For seven consecutive days, the heat index peaked between 100 and 110 degrees each afternoon. The heat index reached as high as 115 at some locations in the Wabash Valley, including Carmi and Fairfield. Surface high pressure over the central Gulf coast region from the 20th to the 24th moved to the southern Appalachian Mountains by the 25th. This high produced a continuous supply of heat and humidity.				
WAYNE COUNTY --- 2.9 ENE RINARD [38.58, -88.42]				
	08/20/14 22:30 CST		5K	Heavy Rain
	08/21/14 00:15 CST		0	Source: 911 Call Center
U.S. Highway 45 was flooded near the Clay County line. A vehicle was stranded in floodwaters.				
A cluster of thunderstorms with torrential rain moved slowly southeast, causing local flooding. The cluster of storms was fed by a moist southwest low level flow, with surface dew points in the lower 70's. Due to weak vertical wind shear and weak mid to upper level forcing, the storms tended to diminish as they crossed Wayne County.				

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INDIANA, Southwest				
VANDERBURGH COUNTY --- EVANSVILLE [37.98, -87.55]				
	08/17/14 05:00 CST		0	Heavy Rain
	08/17/14 11:00 CST		0	Source: Public
Minor street flooding was reported in Evansville. About 1.7 inches of rain was measured within 6 hours at the Evansville airport and at a trained spotter's residence on the southeast side of Evansville.				
A mesoscale convective system moved east-southeast across southwest Indiana, producing locally heavy rainfall. The complex was fed by a southerly wind flow of tropical moisture, with precipitable water values over two inches. The south winds were in advance of a weak surface low pressure center over eastern Missouri.				
(IN-Z081) GIBSON, (IN-Z082) PIKE, (IN-Z085) POSEY, (IN-Z086) VANDERBURGH, (IN-Z087) WARRICK, (IN-Z088) SPENCER				
	08/22/14 11:00 CST		0	Heat
	08/27/14 17:00 CST		0	
A prolonged period of late summer heat and humidity followed an unusually cool July. For six consecutive days, the heat index peaked between 100 and 110 degrees each afternoon. Surface high pressure over the central Gulf coast region from the 20th to the 24th moved to the southern Appalachian Mountains by the 25th. This high produced a continuous supply of heat and humidity.				
KENTUCKY, Southwest				
(KY-Z009) CALLOWAY, (KY-Z012) TRIGG, (KY-Z017) CHRISTIAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	08/01/14 00:00 CST		0	Drought
	08/16/14 22:00 CST		0	
Drought conditions that had started in parts of western Kentucky in July ended by late August. The area of moderate drought conditions extended from Murray to Hopkinsville and Elktown. Impacts of the drought were primarily agricultural. A report from Todd County indicated corn and early-planted soybean yields were projected to be reduced by about 50 percent. The drought ended in August due to the occurrence of thunderstorm complexes that tracked across the region.				
HOPKINS COUNTY --- 2.5 SSW MADISONVILLE [37.30, -87.52], 2.3 SSW MADISONVILLE [37.30, -87.52]				
	08/17/14 14:55 CST		20K	Thunderstorm Wind (EG 65 kt)
	08/17/14 14:57 CST		0	Source: NWS Storm Survey
A microburst with estimated peak winds of 75 mph damaged several structures and some trees. Four homes, a business, and a shed received some shingle damage. Large sections of a vinyl fence were blown down. Several large tree limbs were down. The damage area was about 500 yards long and 500 yards wide. The damage occurred along and just west of U.S. Highway 41.				
HENDERSON COUNTY --- 2.3 W NIAGARA [37.72, -87.52], 1.3 SW NIAGARA [37.71, -87.50]				
	08/17/14 15:33 CST		40K	Tornado (EF1, L: 1.65 mi , W: 60 yd)
	08/17/14 15:36 CST		5K	Source: NWS Storm Survey
This tornado was photographed by a sheriff's deputy and confirmed by a National Weather Service damage survey. Peak winds were estimated near 90 mph. There was minor roof and siding damage to three homes and a mobile home. Numerous large tree limbs were broken, and a couple of trees were uprooted. A large tree was down across a roadway. The path of the suction vortex was clearly evident in aerial photos of a cornfield. The tornado crossed Interstate 69, also known as the Pennyroyal Parkway.				
MUHLENBERG COUNTY --- 6.3 E CENTRAL CITY [37.30, -87.02], 2.3 NW PARADISE [37.30, -87.01]				
	08/17/14 16:31 CST		7K	Tornado (EF0, L: 0.59 mi , W: 125 yd)
	08/17/14 16:32 CST		5K	Source: NWS Storm Survey
This small tornado blew down several small trees and limbs in multiple directions along County Road 1011. There were numerous reports of this brief touchdown that snapped trees and damaged a cornfield. Peak winds were estimated near 75 mph.				
A weak low pressure system moved generally eastward across southern Missouri to the confluence of the Mississippi and Ohio Rivers. Ahead of this low, clusters of thunderstorms moved east-southeast across western Kentucky. These storms were aided by a small 500 mb shortwave trough sliding east-southeast across the Lower Ohio Valley. The storms occurred in a region of moderately strong wind shear. Winds were generally from 20 to 30 knots throughout the lower and mid levels of the atmosphere, but with strong directional shear. Rich low-level moisture was present, with surface dew points in the lower 70's. A couple of weak tornadoes occurred in this moist and moderately sheared environment.				

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(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCRACKEN, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z018) HENDERSON				
	08/19/14 01:00 CST		0	Dense Fog
	08/19/14 07:00 CST		0	

Along and west of a line from Henderson to Madisonville to Murray, the combination of mostly clear skies, calm winds, and abundant low level moisture caused dense fog to form. Visibility was reduced to one-quarter mile or less at times in the dense fog.

MCCRACKEN COUNTY --- (PAH)BARKLEY ARPT PA [37.07, -88.77]				
	08/19/14 15:40 CST		0	Thunderstorm Wind (MG 55 kt)
	08/19/14 15:40 CST		0	Source: ASOS

A wind gust to 63 mph was measured by the automated observing system at Barkley Regional Airport.

A small cluster of severe thunderstorms that originated over southeast Missouri moved east-southeast across the southern tip of Illinois, then into the Paducah area of western Kentucky. An isolated damaging wind gust to near 65 mph was measured at the Paducah airport just before the storms weakened. The storms occurred during the heat of the afternoon along a weakening surface trough that extended southward from the Great Lakes region. The storms were aided by a mid-level shortwave trough moving east-southeast toward the Lower Ohio Valley.

(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCRACKEN, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	08/20/14 11:00 CST		0	Heat
	08/27/14 17:00 CST		0	

A prolonged period of late summer heat and humidity followed an unusually cool July. For eight consecutive days, the heat index peaked between 100 and 110 degrees each afternoon. The heat index reached as high as 115 at some locations in the Henderson/Owensboro area on the 23rd. Surface high pressure over the central Gulf coast region from the 20th to the 24th moved to the southern Appalachian Mountains by the 25th. This high produced a continuous supply of heat and humidity. The triple-digit heat indices ended a couple days sooner along the Tennessee border.

CHRISTIAN COUNTY --- 2.2 SW OAK GROVE [36.65, -87.46]				
	08/20/14 16:03 CST		0	Thunderstorm Wind (MG 55 kt)
	08/20/14 16:03 CST		0	Source: AWSS

A wind gust to 63 mph was measured by automated observing equipment at the Fort Campbell airfield.

Scattered thunderstorms developed during the heat of the afternoon in a region of weak vertical wind shear. Mid to upper level forcing was generally weak, but a well-defined outflow boundary from an earlier thunderstorm complex contributed to storm intensification. An isolated severe thunderstorm occurred at Fort Campbell, producing a measured wind gust near 60 mph.

MCCRACKEN COUNTY --- (PAH)BARKLEY ARPT PA [37.07, -88.77]				
	08/30/14 11:00 CST		0	Heavy Rain
	08/30/14 13:00 CST		0	Source: ASOS

The automated observing system at Barkley Regional Airport measured 4.27 inches of rain in two hours. A street in a subdivision near the airport was covered by flowing water.

CALDWELL COUNTY --- 2.0 SE PRINCETON [37.10, -87.84]				
	08/30/14 13:00 CST		0	Heavy Rain
	08/30/14 15:00 CST		0	Source: Mesonet

A Kentucky mesonet site measured 3.29 inches of rain in a couple of hours.

Thunderstorms with torrential rainfall moved slowly across the same areas, producing up to three inches of rain per hour in very isolated spots. The storms occurred within a very moist southwest low level wind flow. Surface dew points were in the lower 70's. The storms were aided by a rather sharp 500 mb shortwave trough over Missouri.

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BUTLER COUNTY --- 2.0 W POPLAR BLUFF [36.75, -90.44]				
	08/06/14 14:01 CST		0	Hail (0.75 in)
	08/06/14 14:01 CST		0	Source: Trained Spotter
BUTLER COUNTY --- 5.0 S POPLAR BLUFF [36.68, -90.40]				
	08/06/14 14:15 CST		0	Hail (0.75 in)
	08/06/14 14:15 CST		0	Source: Trained Spotter
A few strong storms occurred as the leading edge of warmer and more humid air moved into southeast Missouri. Winds became southerly on the back side of a high pressure ridge over the Lower Ohio Valley.				
(MO-Z076) PERRY, (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID				
	08/19/14 02:00 CST		0	Dense Fog
	08/19/14 07:00 CST		0	
The combination of mostly clear skies, calm winds, and abundant low level moisture caused dense fog to form in many areas. Visibility was reduced to one-quarter mile or less at times in the dense fog.				
BOLLINGER COUNTY --- SCOPUS [37.40, -89.93]				
	08/19/14 13:45 CST		0	Hail (2.75 in)
	08/19/14 13:45 CST		0	Source: Emergency Manager
Baseball-size hail was reported near the intersection of Highways B and M.				
CAPE GIRARDEAU COUNTY --- JACKSON [37.38, -89.67]				
	08/19/14 14:00 CST		0	Hail (2.00 in)
	08/19/14 14:00 CST		0	Source: Broadcast Media
Hen-egg size hail was observed in the community.				
CAPE GIRARDEAU COUNTY --- CAPE GIRARDEAU [37.30, -89.53]				
	08/19/14 14:17 CST		0	Hail (0.88 in)
	08/19/14 14:17 CST		0	Source: Emergency Manager
CAPE GIRARDEAU COUNTY --- JACKSON [37.38, -89.67]				
	08/19/14 14:31 CST		10K	Lightning
	08/19/14 14:31 CST		0	Source: Emergency Manager
Several trees and large branches were down due to numerous lightning strikes.				
A small cluster of thunderstorms rapidly became severe over central Bollinger County. This cluster of storms produced very large hail as it tracked east-southeast across central Cape Girardeau County and then into southern Illinois. The storms developed during the heat of the afternoon along a weakening surface trough that extended southward from the Great Lakes region. The storms were aided by a mid-level shortwave trough moving east-southeast toward the Lower Ohio Valley.				
(MO-Z076) PERRY, (MO-Z086) BOLLINGER, (MO-Z087) CAPE GIRARDEAU, (MO-Z100) WAYNE, (MO-Z107) CARTER, (MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID				
	08/20/14 11:00 CST		0	Heat
	08/27/14 17:00 CST		0	
A prolonged period of late summer heat and humidity followed an unusually cool July. For seven to eight consecutive days, the heat index peaked between 100 and 110 degrees each afternoon. Surface high pressure over the central Gulf coast region from the 20th to the 24th moved to the southern Appalachian Mountains by the 25th. This high produced a continuous supply of heat and humidity.				